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09/115,359    07/14/98    MERILL    J    INTL-0038-US

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EXAMINER

SAX, R

ART UNIT

PAPER NUMBER

2645

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/115,359

Applicant(s)

Merill

Examiner

Robert Sax

Group Art Unit

2748

☒ Responsive to communication(s) filed on Aug 11, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 14, 15, and 21-32 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 14, 15, and 21-32 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 2748

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 26 and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "the object" lacks an antecedent basis in respective claims 25 and 29. In order to search the claims, "the object" was presumed to refer to "an object" further narrowed to the special case of the object corresponding to "a software agent" in respective claims 25 and 29. In any case this definitely needs to be clarified.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Art Unit: 2748

4. Claims 14, 15 and 25-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Trower II et al.

Claims 14, 15, 31 and 32: providing a software object responding to spoken or non-spoken commands, Trower II et al (US Patent 5,983,190) teach “The commands object that enables clients to specify a collection of commands that an agent object will respond to when a client becomes active” (col. 27, lines 5-7). “For each command in the collection, the client can specify user accesses, for example, if the programmer wants a command to appear on the Commands window, she sets the Commands’s Caption and Visible properties ... also sets the Voice properties for a command, which enables speech recognition” (col. 27, lines 18-26).

Firing the same event when said object receives spoken or non-spoken command information, Trower II et al teach a dual interface where “ an OLE object can expose a set of functions that is derived from IDispatch and includes method and property access functions that another program can call directly ... (also) ... other programs can invoke an object’s methods through the IDispatch interface... including ... OLE Automation to provide support for events”, ... (col. 21, lines 17-26). “When control wants to fire an event, it calls the container method associated with the event” (col. 21, lines 33-37) Invoking an objects methods and exposing access to functions would have included calling software objects which respond to command information, spoken or unspoken, through the interactive interface as described in the preceding paragraph (col. 27, lines 30-43).

Art Unit: 2748

Claim 25 of claim 14 and claim 29 of 15: Associating speech commands with identifiers, Trower II et al teach an animation server with animated characters responsive to identifiers providing speech input and output capabilities to users where “clients can specify input commands including both speech and cursor device input for the character” (col.2, lines 22-30)

Associating the identifiers with actions to be taken in a spoken speech command, Trower II et al teach actions taken in response to speech commands to provide control animation and lip synched synthetic speech output of the animated character (col. 2, lines 28-34).

Determining the identifier for a spoken speech command, Trower II et al teach word identifiers associated with commands where “the speech recognition engine analyses digitized audio input to identify words or phrases selected by the animated server” (col. 2, lines 46-48).

Providing identifiers to a software agent, Trower II et al teach an OLE control interface to add an animated character to HTML documents and controlling the character by script code interpreted by an Internet browser application wherein when it “encounters an object identifier in the HTML page” it executes the script controlling the character. An example of the “animation server’s ActiveX control interface” is the “The Agent Object”, as a software agent object, is used by the animation server to provide “animation services using the methods, properties, and events of the agent object’s interface” where identifiers of methods indicate functions which are invoked by clients to control playback of an animation. “Example methods include: Play, GestureAt, MoveTo, Stop, and Speak” (col. 22, line 40 - col.23, line 12).

Art Unit: 2748

Claim 26 of claim 25: instantiating an object in a container and communicating the identifier to the object when a particular speech command is spoken, Trower II et al teach “the client program to interact with an instance of a COM object, i.e., instantiate an object supported by the server application ...(where) the client realizes these events ... based on class and interface identifiers ... that a programmer creates ... and assigns to the respective classes. ... to provide support for events ... incorporated into a host application called a container. .. (where) an event is notification from the control ... that something has happened ... implemented in the container and not the control ... (and where) when a control wants to fire an event it calls the container method associated with the event”. whereby a “connection point ... is used to hook up to the implementation of an interface with which the object wishes to communicate”, where the container in the case of the animation server represents a hierarchy of objects shown on Fig. 10 which includes command object 362 (col. 20, lines 1-19; col. 20, lines 24-43; lines 55-62).

Claim 27 of claim 26 and claim 30 of claim 29: including communicating information about a first speech command first speech command to the container, checking an active vocabulary list on the container to determine if the first speech command is one used in an active task, and if the speech command, and if the speech command is one used in an active task, transmitting identifier for the speech command to the object, wherein:

Trower II et al teach communicating information about speech commands by “a speech recognition engine in communication with an audio input device for receiving speech input from the user ...to identify the speech input commands; and in communication with the receiver for

Art Unit: 2748

the user ...to identify the speech input commands; and in communication with the receiver for sending notification messages to the server when the speech commands are detected” (col. 39, lines 27-33).

Trower II et al teach checking active vocabulary list for speech commands in an active task where the Voice property was selected and in which case “for the Voice property of a command, the supplied text is automatically compiled as part of the active vocabulary of the speech recognition engine allowing speech recognition when the client activates its Commands object (col. 28, lines 45 -51).

Trower II et al teach checking the active list for active or inactive status of a spoken command where “The commands object enables clients to specify a collection of commands that an agent object will respond to when a client becomes active. The server maintains a list if commands that are currently available to the user” and “for speech input the client specifies the string value corresponding to the word or phrase to be recognized by the speech engine to recognize this command” (col. 27, lines 5-8, 57-59).

Trower II et al teach transmitting speech command identifiers to the server, e.g. in response to “tags in every piece of text” as identifiers indicating “ that the server wants to be notified whenever one of these tags are encountered ... to display the word that is being spoken in a visual user interface” (col. 24, lines 4-13). also the end user controls “which client has the chance to become active through either direct communication with the server or one of its connected clients” (col. 33, lines 60-63) and “for speech input the client specifies the string value

Art Unit: 2748

corresponding to the word or phrase to be recognized by the speech engine to recognize this command” (col. 27, lines 57-59).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trower II et al in view of Denning.

Claim 28 of claim 26 including using an OnMnemonic method to communicate between the container and the object,

Trower II et al teaches Microsoft Press publication, “Active X Controls Inside Out” by Adam Denning which indicate the OnMnemonic method Visual Basic construct for controlling communication by an object to a container. Commands object properties “that affect how the server presents the command” (col. 28, lines 45-47) by using the ActiveX control interface ... to access the animation (server) services from WEB pages “ thereby using the Agent object for communicating tags to control Vcommand (Voice command} object methods, events and properties.(col. 35, lines 17-19, 29-45).



Art Unit: 2748

Trower II does not use the OnMnemonic method to control the communication between an object and container. .

Denning teaches Mnemonic method as a control interface for an object communicating events between object and container ("Control and Container Communication", pp 110-111).

It would have been obvious to an artisan and at the time of the invention to use the Mnemonic method as a Visual Basic construct for creating an object oriented control and communication interface for object oriented speech recognition software integrated with other interactive objects of a target program capable of communicating with application servers.

7. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al.

As per claim 21 of the method which comprises the following four steps.

(a) Associating a spoken and non-spoken command with the same identifier, Hashimoto et al teaches a speech recognition interface for window systems for simultaneously accessing active application programs, where speech is an optional standard input used interchangeably and in focus with other standard input such as the mouse and keyboard to invoke a command to perform the same action in response to the speech command as would have been obtained by any other data input means such as the keyboard and mouse (col. 18, lines col. 10-22).

(b) Associating the identifier with an action to be taken in response to a spoken or non-spoken command, Hashimoto teaches a speech I/O interface, for invoking commands controlling actions

Art Unit: 2748

performed by any active general application program not connected to the speech I/O system, by special application programs for speech I/O containing a speech interface management system which can make any general application programs speech controllable by converting speech inputs into a standard form for accepting commands from any optional standard input means, in order to produce the same action in response to the spoken command input as would have been produced by nonspoken command input such as by mouse or keyboard; where based on this it would have been obvious to infer that the same action produced in response to any standard input, whether inputted to an application by speech I/O or other I/O has the same identifier which would have been inferred to have been the label for activating the object code executed in response to the spoken or nonspoken command input (col. 59, lines 3-20, 49-58).

(c) Determining the identifier for spoken and unspoken commands, Hashimoto teaches a common identifier associated with actions performed by operation command message transmitted to a general application program without any special built-in speech processing capability where recognized speech commands are interfaced with general application programs by a speech interface management program utilizing program operation registration unit with a table to convert speech recognized commands to a form acceptable to the active general application program in order to convey the same identifier message as the other more standard usual input devices such as the keyboard or mouse (col. 59, line 59 - col. 60, line 21).

(d) of claim 21 for providing the identifier to a software object, claim 22 of instantiating an object in a container and communicating the identifier to the object, and (a) of claim 23 of

Art Unit: 2748

communicating a spoken command to the container, Hashimoto teaches providing the identifier as messages transmitted to a software object by activating a container such as a general application program or instantiating a window object in the activated general application program by usual means of identifier messages conveyed to the object, by standard mouse and/or keyboard input or alternatively by speech input, in order to facilitate transmission of the operation command by utilizing functions provided by the window system library, where in place of transmitting the identifier message directly to the general application program, the message is transmitted to the a software object generated by the container which is the activated general application program, where messages conveying an operation command must be addressed to the same identifier of a destination object as would have been the case as if invoked by a by usual input devices of mouse and keyboard; where even in such cases, it is easy to determine the identifier of the destination object from information obtained the window system and the program operation registration unit under the speech interface management system (col. 59, line 49 - col. 60, line 31).

As per claim 23 (b) of checking an active vocabulary list in the container to determine if a spoken command is related to an activated task and claim 23 (c) wherein if a spoken command is related to the active task transfer the identifier to the object, Hashimoto teaches a speech recognition interface system as container or server comprising a speech recognition unit and a message processing unit connected to a program management table, also connected to plural active applications or clients. The program management table stores information received from an active application for communicating spoken commands by updating input masks and input flags

Art Unit: 2748

for speech focus and vocabulary appropriate to the state of the application program determined from previous speech commands and other forms of standard input such as mouse or keyboard,. The container vocabulary list at the time of a spoken command is controlled by messages received from the application or object generated by the application which determine settings of the input masks and flags controlling speech focus. (col. 10, line 8 - col. 11, line 10 col. 12, lines 11-55; col.19, line 18 - col. 20, line 12; col. 59, line 65 - col. 60, line 32; col. 66, lines 33-45).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al in view of Demming et al. .

As per claim 24 of including the OnMnemonic method to communicate between the container and the object, Denning teaches the Microsoft Active Controls specification for Microsoft Windows which facilitates control and container communications implemented as IOleControl by an embedded object and as IOleControlSite implemented by the container, where IOleControl has four methods which include OnMnemonic(MSG \*pMsg) which is called by the container when a key, designated by a single Mnemonic is pressed in order to shift activation to a next control capable of receiving focus (page 111, line 23 - page 112, line 29).

Hashimoto teaches a control means of using library functions of a windows system for facilitating communication between a container and a window generated by an application as the software object (see claim 22 and claim 21 (d)).

Art Unit: 2748

Hashimoto does not teach a speech I/O interface limited to the Microsoft Windows System and the Active Controls specification for using the OnMnemonic method as a specific window function available to facilitate communicating messages from the container to the object

It would have been obvious to an artisan and at the time of the invention to use the Mnemonic method as a Visual Basic construct for creating an object oriented control and communication interface for object oriented speech recognition software integrated with other interactive objects of a target program capable of communicating with application servers.

### ***Response to Arguments***

8. Applicant's arguments filed paper number 11 have been fully considered but they are not persuasive.

With respect to remarks Andreshack, these prior art references are withdrawn. With respect to Hashimoto, the examiner agrees that Hashimoto teaches accepting spoken commands by applications not otherwise equipped to receiving speech commands. In addition Hashimoto teaches accepting non-spoken commands as shown on Fig. 17, where either a speech recognition system or window system are in focus alternative means of entering standard input of commands to any application where either form of input operates independently of each other (col. 18, lines 44-60)..

With respect to teaching an object receiving spoken or non-spoken commands, Trower II et al teaches "Visual and Speech Input Command Notification" where "The server monitors ...

Art Unit: 2748

client-specific commands ... and sends a notification to the appropriate client when it detects the input command. When the end user selects a command. , via either the visual command interface or through a spoken command ... the server provides a notification in the form of a command event of the agent object”, see Fig. 10, and this prior art of Trower II et al pertains to new claims 31 and 32 where the object is an agent object and the command event is a notification (col. 34, line 50, 57-65).

### *Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

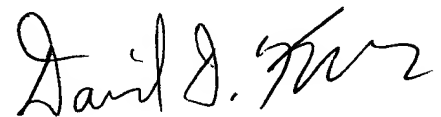
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2748

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sax whose telephone number is (703) 306-3017.

If attempts to reach the examiner are unsuccessful, the examiners supervisor, Krista Zele can be reached at (703) 305-4701.

Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-3900.



DAVID D. KNEPPER  
PRIMARY EXAMINER

RLS

September 21, 2000